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(54) Title: MECHANONSENSITIVE ION CHANNELS AND METHODS OF USE

(57) Abstract: The present invention provides methods for identifying agents that decrease the activity of a mechanosensitive ion channels, preferably, a mechanosensitive Ca²⁺-permeable channel (MscCa) channel. The present invention also provides methods for using agents that decrease the activity of mechanosensitive ion channels, including, for instance, methods for treating cancer, methods for decreasing metastasis of a cancer cell, and methods for decreasing a symptom associated with cancer.

WO 2005/070122 A2

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